

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A system to infer XML schema definitions comprising:

a XML document, the XML document having attribute and data type information; and
an XSD (XML schema definition) inference engine, the XSD inference engine
accepting the XML document as input to process the XML document to ~~infer~~ generate an
XML schema definition defining elements that appear in the XML document and attributes
associated with the elements.

Claim 2 (Original): The system as recited in claim 1, wherein the XSD inference engine
comprises a computing application capable of processing XML documents.

Claim 3 (Currently Amended): The system as recited in claim 2, wherein the XSD inference
engine comprises at least one inference algorithm operating within the constraints of the
~~XML Schema Definition Language~~ schema definition language.

Claim 4 (Canceled)

Claim 5 (Currently Amended): The system as recited in claim 1, further comprising a second
XML document, the second XML document acting as input to the XSD inference engine
along with the inferred XML ~~Schema Definition~~ schema definition to create a refined XML
~~Schema Definition~~ schema definition.

Claim 6 (Currently Amended): The system as recited in claim 5, wherein the refined XML
~~Schema Definition~~ schema definition acts as input to the XSD ~~Inference Engine~~ inference
engine along with a third XML document to produce a second refined XML ~~Schema
Definition~~ schema definition.

Claim 7 (Currently Amended): A method to infer XML ~~Schema Definitions~~ schema
definitions comprising:

receiving an XML document as input, the XML document having some attribute and/or data type information;
determining the attribute and/or data type information present in the XML document;
and
~~inferring~~ generating a schema definition defining elements that appear in the XML document and attributes associated with the elements using the determined attribute and/or data type information.

Claim 8 (Original): The method as recited in claim 7, further comprising making existing attributes optional if it is determined that an attribute does not exist in the XML document.

Claim 9 (Original): The method as recited in claim 8, further comprising determining the content model.

Claim 10 (Original): The method as recited in claim 9, further comprising determining if a new schema is to be inferred.

Claim 11 (Original): The method as recited in claim 10, further comprising setting the attribute to optional for existing content.

Claim 12 (Original): The method as recited in claim 11, further comprising determining if there is white space in the XML document.

Claim 13 (Currently Amended): The method as recited in claim ~~[[14]]~~ 12, further comprising setting the date and line number to strings in the event that there exists white space in the XML document.

Claim 14 (Currently Amended): The method as recited in claim 12, further comprising determining if a schema definition already exists for the XML document.

Claim 15 (Original): The method as recited in claim 14, further comprising refining the type or inferring the type.

Claim 16 (Original): The method as recited in claim 15, further comprising creating a complex type.

Claim 17 (Original): The method as recited in claim 16, further comprising adding attributes.

Claim 18 (Original): The method as recited in 17, further comprising adding a type.

Claim 19 (Original): A computer readable medium having computer readable instructions to instruct a computer to perform the method as recited in claim 7.

Claim 20 (Original): A computer readable medium having computer readable instructions to instruct a computer to perform the method as recited in claim 19.

Claim 21 (Currently Amended): A computer readable medium having computer readable instructions to instruct a computer to generate an XML schema comprising:

an inference algorithm, the inference algorithm operating on XML data to identify data types and attributes and ~~inferring~~ generating XML schemas defining elements that appear in the XML data and attributes associated with the elements using such type and attribute information in conjunction with XSD (XML schema definition) language parameters and constraints.

Claim 22 (Currently Amended): The computer readable medium as recited in claim ~~[[23]]~~ 21, wherein the inference algorithm is part of a computing application for use in XML data processing.